

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
2 June 2005 (02.06.2005)

PCT

(10) International Publication Number
WO 2005/049581 A1

(51) International Patent Classification⁷: **C07D 237/22**,
237/24, 401/12, 417/04, 403/04, 413/04, 401/14, 401/04,
495/04, 471/04, 417/14, A61K 31/50, 31/501, A61P 11/06

Wenceslao [ES/ES]; C/Camprecios 19, Esc. B, 1^ª1a,
F-08960 Sant Just Desvern (ES). **VERGELLI, Claudia**
[IT/IT]; Via Boccaccio, 11, I-50012 Grassano (IT).

(21) International Application Number:
PCT/EP2004/012604

(74) Agents: **WINKLER, Andreas** et al.; Boehmert &
Boehmert, Hollerallee 32, 28209 Bremen (DE).

(22) International Filing Date:
8 November 2004 (08.11.2004)

(81) Designated States (*unless otherwise indicated, for every
kind of national protection available*): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
P 200302613 10 November 2003 (10.11.2003) ES

(71) Applicant (*for all designated States except US*): **ALMI-
RALL PRODESFARMA, S.A.** [ES/ES]; Ronda del Gen-
eral Mitre, 151, E-08022 Barcelona (ES).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **DAL PIAZ, Vittorio**
[IT/IT]; Via Poggio Ugolino, 7/A, I-50015 Impruneta (IT).
AGUILAR IZQUIERDO, Nuria [ES/ES]; C/Espronceda
31-37, Esc. 2 4º 3a, E-08005 Barcelona (ES). **BUIL
ALBERO, Maria Antonia** [ES/ES]; C/Paris 50, 1º 4a,
E-08029 Barcelona (ES). **GARRIDO RUBIO, Yolanda**
[ES/ES]; C/ Camino Cabaldos 39, 3ºF, E-50013 Zaragoza
(ES). **GIOVANNONI, Maria, Paola** [IT/IT]; Via Ponte
di Formicola, 91, I-50018 Scandicci (IT). **GRACIA
FERRER, Jordi** [ES/ES]; Plaza de las Navas, 5, 4º
2a, E-08004 Barcelona (ES). **LUMERAS AMADOR,**

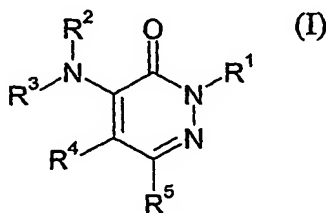
(84) Designated States (*unless otherwise indicated, for every
kind of regional protection available*): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE,
SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

*For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.*

(54) Title: PYRIDAZIN-3 (2H) -ONE DERIVATIVES AND THEIR USE AS PDE4 INHIBITORS



(57) Abstract: New pyridazin-e-(2H)-one derivatives having the chemical structure of general formula (I) are disclosed; as well as processes for their preparation, pharmaceutical compositions comprising them and their use in therapy as inhibitors of phosphodiesterase 4.